A Podcast Guided Tour of China Dairy Museum

Leave the traditional guided tours behind and strike out at your own pace with an audio guide. This bilingual podcast is presented by Shanghai Daily and supervised by the Shanghai Science and Technology Committee.

Most of us consume milk and other dairy products everyday, but do you know what it takes to bring this delicious, nutritious food to our tables? In 2001 the country's first and only dairy museum was opened in Shanghai to tell us all about it. Appropriately situated in the grounds of one of China's largest dairy companies, Bright Dairy & Food Co., the museum explains dairy production from the past to the present, plus other scientific facts about dairy that you probably didn't know.

Enter the Bright Dairy & Food compound and the museum is second on the left. It's free to go in, so let's go straight to the Great Hall.

Look at the wall painting here – it's a replica of a 1,100 year old wall painting found in a Tibetan temple showing ancient Chinese extracting and using milk. When you think of milk and dairy products, probably a Western lifestyle comes to mind. You may even think it was foreigners that first brought dairy science into China. But paintings like these and other artifacts have shown that the Chinese knew how to use dairy thousands of years ago.

Go through the door on the right for the Dairy in Ancient Times section.

Liquid milk was first produced in China in 202 B.C. just before the Han Dynasty. On your right is a Han Dynasty statuette, called Nursing Goddess, which shows a woman nursing her baby from a bottle. Inside this section

there’s further evidence of ancient Chinese using dairy products – notice the ancient urns used to hold milk on your right. Notice also the painting above - this is a replica of a painting by Tang Dynasty artist Han Huang. The original is China’s oldest painting on paper. Not only does it show a traditional Chinese respect for cows, it also shows an early understanding of their different breeds.

Along the wall in front is a display of books dating back 1,500 years on the medicinal properties of different types of milk. One chronicles a Mr. Wen who lived to a ripe old age due to drinking milk and had a great complexion to boot. And did you know that drinking pig’s milk can help a baby to sleep?

Turn left and walk further down. At the end there’s a display on deer milk. It was commonly consumed by northern Chinese tribes, such as the Manchurians, to help defend against the cold.

Turn left again and on the wall in front are some picture plaques. The first on the right shows an ancient cheese-making site in Inner Mongolia which was in operation around 750 years ago. Now look at the picture to its left. These ordinary looking Buddhist statues are actually entirely made of butter! In Tibet, butter sculptures are a traditional offering in monasteries and family shrines.

Let’s go back to the main path and turn right for the Dairy in Modern Times section.

On your immediate right is a foreign ship bringing dairy cows into China. Dairy production grew slowly during China’s feudal period, so it was Western foreigners entering China in the 19th Century that initiated the country’s modern dairy industry. Not only did they bring a new breed of

black and white cows that produced far more milk and of better quality than indigenous Chinese cows, they also opened dairy factories and companies in the coastal cities – particularly Shanghai.

The circular map on the floor shows the locations of these factories around Shanghai in 1945. Further inside the section are documents chronicling the growth of dairy industries including the Culty Corporation in the 1910' s. This was a joint Chinese and foreign venture and the ancestor of a current day, fully Chinese company 'Ke Di'.

Further inside the exhibition area is a large machine. This is a first generation, 1930' s milk powder maker. Steam passed inside the two large rollers on the side while milk was poured on top. The heat from the steam evaporated the water in the milk and two metal plates then scraped the powder off the top.

Now turn to the cabinet in the middle. This displays China' s first domestic dairy company, Baihao. It was established by Wenzhou entrepreneur, Hao Baiheng, in 1926 to compete with the English Yingrui Co. which then dominated the Chinese dairy market. Notice their logo is a hand grabbing an eagle not letting it fly freely. It' s no coincidence that the 'Ying' of Yingrui Co. means 'eagle' in Chinese.

Walk outside the modern exhibition area and follow its circular wall. We' re entering the 1970' s period. In the Planned Economic Period milk production could not meet demand so a rationing system was used to give milk to only those who needed it the most. A cabinet on the right displays ration tickets; only old people, infants and the sick was entitled to these. Also notice the wall in front of you, it' s a recreation of an alleyway at the time with a milk dispensing window. This is where people got their rations of milk.

Continue straight ahead for the Dairy in Contemporary Times section. This section begins with a life-size milk truck. Climb inside the milk tank for a short film on modern dairy processing science, and have a rest at the same time.

When you' re done, leave the milk tank through a door at the back. Straight in front is a well like structure. Look inside – it' s a futuristic cartoon of a cow family. Why futuristic? You can feel inside, there' s no screen. The cartoon is made from a clever projection of light. Look up and opposite are a display on different breeds of cows.

Walk down the ramp on your left. When you' re inside a tunnel have a look at the dissection of a cow on your right. Some people say that a cow has 4 stomachs. Actually it has one stomach with 4 compartments. Grass is hard to digest so it needs to be passed through each compartment before the nutrients can be fully absorbed into the cow' s bloodstream. Half digested grass is even passed back to the cow' s mouth for further chewing during the process! Inside the udder, vitamins and minerals are taken from the cow' s blood to make milk. It takes 500 litres of blood to make 1 litre of milk - so it' s often said drinking milk is as nutritious as drinking the cow' s blood!

Keep going and the green section in front tells all about the nutritious properties of milk. The bubbles on the wall each contain a use for milk, and on the left is a rope bridge. Look at the steps – each step is a vitamin or mineral found in milk. Milk contains most of the vitamins and minerals we need including many of the B vitamins and the fat-soluble vitamins A, D, E, and K. And in terms of minerals, milk is well-known to be a good source of calcium which keeps our bones healthy.

Now walk into the circular dome at the centre of the exhibition area. Take a look through those microscopes; you can see live bacteria that turn milk into yoghurt.

Turn around, the contemporary section continues on your right. The table straight in front is a 3D map showing what happens to cow dung whilst dairy is produced. With the gallons of milk that is produced everyday, a lot of cow dung is produced too and these can be put to good use. Walk forward to the screen on the left for the accompanying cartoon explaining the map.

Keep walking forward and the wall on your right displays three major contributors to modern dairy processing science in China. There is Zhou Xiong, a New Zealander of Chinese origin, who invented the Hall' s refrigeration machine for dairy products in 1889; Zhao Haiquan who pioneered scientific cow breeding in the 1940' s; and the American couple, Enwin Engst and Joan Hinton, who came to China as dairy cow experts with a UN aid giving mission in 1946, and stayed their entire lives developing cow rearing techniques in rural China.

Walk forward again and at the end of this section is a circular platform with a cow in the middle. This is all about the national School Milk program that aims to provide every school child in China with sufficient milk each day. In Shanghai it has been in operation for over 5 years, and the Bright Dairy & Food Co. has been involved from the start. By 2002 Bright Dairy supplied milk to 1,374 schools across Southern China, not only in Shanghai but as far afield as Hainan and Guangdong.

As you leave this section, notice the milk bar on your right and the milk tree on your left. These display the different milk products made by Bright Dairy Co.

That’ s it for our tour today. We hope you enjoyed your visit to the China Dairy Museum.

Museum address: 467 Wanrong Rd, near Daning Rd
Admission: Free
Opening times: Daily 9am–4:30pm. (Group visits by prior arrangement)
Transport: Metro station Yanchang Rd, Line 1.
For more details contact the museum at: 5665-8452 or check out www.dmchina.net

Key Words:

1. Dairy (n, adj). Milk products, or of milk. 乳业

2. Diary Cow (n). Cattle that are reared for their milk. 奶牛

3. Yoghurt (n). A custardlike food with a tart flavor, prepared from milk curdled by bacteria. 酸奶

4. Butter (n). A soft yellowish or whitish emulsion of butterfat, water, air, and sometimes salt, churned from milk or cream and processed for use in cooking and as a food. 黄油

5. Cheese (n). A solid food prepared from the pressed curd of milk, often seasoned and aged. 乳酪